

heterogeneous extensive metabolizer, which had the incremental cost effectiveness ratio of ¥57,810 per QALY gained. Probabilistic sensitivity analysis suggests that the results are robust with 97% probability that ilaprazole is consider cost effective when 3 times China average GDP per capital threshold is used. **CONCLUSIONS:** The cost-effectiveness analysis results demonstrated that ilaprazole would be considered cost-effective compared with omeprazole to treat newly diagnosed duodenal ulcer patient in China. When treating the duodenal ulcer patients who are CYP2C19 subpopulation of heterogeneous extensive metabolizer, ilaprazole is highly cost-effective, compared with omeprazole.

## PGI10

## STRENGTHS AND WEAKNESSES OF CURRENT CLINICAL AND ECONOMIC EVIDENCE FOR THE COMPARISON OF LAPAROSCOPIC VERSUS OPEN REPAIR OF INCISIONAL HERNIA

Hargreaves JA

Covidien (UK) Commercial Ltd, now part of Medtronic, Whiteley, Fareham, UK

**OBJECTIVES:** Incisional hernias are common following abdominal surgery and place a significant burden on patients and healthcare resources. There are two main approaches to mesh-based surgical repair of an incisional hernia: open surgery and laparoscopy. To date, however, no consensus has been reached as to which approach is preferred. The aim of this study was to review the strengths and weaknesses of current clinical and economic evidence comparing laparoscopic with open repair of incisional hernias. **METHODS:** Studies investigating clinical and economic outcomes of laparoscopic and open incisional hernia repair published between 2003–2014 were identified. Due to the paucity of available data, evidence is supplemented using findings from large database studies. Other types of study were considered for specific outcomes only when no other evidence was available. **RESULTS:** Overall, there is a relatively large body of consistent evidence to conclude that laparoscopic repair of incisional hernia is at least equal to open repair in terms of mortality, short- to medium-term recurrence, complications, pain and quality of life, with a possibly longer operative time. In addition, laparoscopic repair of incisional hernia has consistently been shown to be associated with fewer infections and a shorter hospital stay than open repair. Although economic data are limited, there is consistent evidence from studies that compared the costs for both laparoscopic and open repair of incisional/ventral hernia to suggest that the higher operational costs associated with laparoscopic repair, which have been attributed, variously, to a longer operative time, a need for more expensive mesh or greater supply costs in several studies appear to be offset by the shorter hospital stay associated with the procedure. **CONCLUSIONS:** There is consistent evidence to suggest that laparoscopic repair is associated with lower rates of infection and shorter hospital stays (and consequently lower overall costs) than open surgery.

## PGI11

## PHARMACOECONOMIC ANALYSIS OF DIFFERENT STRATEGIES OF REPLACEMENT THERAPY IN RUSSIAN PATIENTS WITH PANCREATIC EXOCRINE INSUFFICIENCY

Ryazhenov VV<sup>1</sup>, Maximkin SA<sup>2</sup><sup>1</sup>I.M. Sechenov First Moscow State Medical University, Moscow, Russia, <sup>2</sup>Center for strategic research in healthcare, Moscow, Russia

**OBJECTIVES:** To perform comparative pharmacoeconomic study of the application of IV generation of pancreatin drugs in patients with pancreatic exocrine insufficiency on the hospital stage of medical care. **METHODS:** A pharmacoeconomic model of administration of IV generation of pancreatin drugs (creon and ermital) in adult patients (100 persons in compared groups) during replacement therapy of pancreatic functional insufficiency was developed. Dosage of the drugs was at least 100 000 units of lipolytic activity per 24 h. Time horizon was 21 days. Measures of clinical efficiency of the applied therapy were the number of patients, who would reach clinical response according to „pain relief“ and „diarrhea relief“ parameters. **RESULTS:** In the modeled conditions, costs of drug therapy per patient were within the range of 962.78 — 1,869.56 RUB in the group of creon and 736.12 — 1,237.20 for ermital, depending on the dose. CER values were: pain relief in the range of 1,046.5 — 2,032.13 in creon group, and 836.50 — 1,405.90 in ermital group; diarrhea relief was in the range of 927.38 — 1,927.38 in creon group and 783.10 — 1,316.17 in ermital group. **CONCLUSIONS:** The conducted clinical and economical research demonstrated pharmacoeconomic advantages of ermital administration. It should be noted that the results of this work were significantly influenced by the applied dosages of medications, which were one of the key factors of economical substantiation of use of the considered medical technologies.

## PGI12

## ECONOMIC BURDEN AND QUALITY OF LIFE OF MODERATE-TO-SEVERE IRRITABLE BOWEL SYNDROME WITH CONSTIPATION (IBS-C) IN GERMANY: RESULTS FROM THE IBS-C STUDY

Layer P<sup>1</sup>, Andresen V<sup>1</sup>, Diemert S<sup>2</sup>, Mackinnon J<sup>3</sup>, Bertsch J<sup>3</sup>, Fortea J<sup>2</sup>, Tack J<sup>4</sup><sup>1</sup>Israelit Hospital, Hamburg, Germany, <sup>2</sup>Almirall S.A., Barcelona, Spain, <sup>3</sup>TFS Develop S.L., Barcelona, Spain, <sup>4</sup>University Hospital Gasthuisberg, Leuven, Belgium

**OBJECTIVES:** To assess the socio-economic burden of moderate-to-severe IBS-C in six European countries (France, Germany, Italy, Spain, Sweden and UK). Here we present the economic and quality of life (QoL) results from Germany. **METHODS:** Observational, retrospective-prospective (6 months each) study of patients diagnosed in the last five years with IBS-C (Rome-III criteria) and with moderate-to-severe disease at inclusion [IBS-Symptom Severity Scale [IBS-SSS] score  $\geq 175$ ]. The primary objective was to determine annual direct and indirect costs. Secondary objectives included assessing QoL at baseline: IBS-QoL and EuroQoL-5D (EQ-5D) questionnaires. Work productivity was assessed using the Work Productivity and Activity Impairment-IBS-C questionnaire (WPAI-IBS-C). **RESULTS:** 102 patients were included from Germany: mean ( $\pm$ SD) age 47.6 $\pm$ 18.1 years, 83.3% female, 43.1% severe (IBS-SSS). In the week prior to baseline, mean presenteeism (WPAI-IBS-C) was: 35.6% $\pm$ 28.2% of time; absenteeism: 14.7% $\pm$ 28.2%; work productivity loss: 44.1% $\pm$ 32.7%; daily activity

impairment: 36.3% $\pm$ 24.8%. The most prevalent symptoms at baseline were abdominal pain (85.3%), constipation (7.5%) and bloating (76.5%). Mean IBS-QoL was 61.8 $\pm$ 18.2 (scale: 0–100 [worst–best]). Mean EQ-5D was 58.4 $\pm$ 20.2 (scale: 0–100 [worst–best]) and 85.3% and 50.9% of patients reported moderate-to-severe problems in pain/discomfort and anxiety/depression, respectively. Over the year, 78.4% patients consulted a primary care physician and 69.6% a gastroenterologist, 18.6% patients required emergency department visits/hospitalisation and 66.7% had a diagnostic test. 54.9% patients took prescription drugs for their IBS-C and 69.6% took non-prescription drugs. Mean (95%CI) annual direct costs per patient for Germany's national healthcare system: €1,423 (621–2601); cost for the patient: €539 (313–841); indirect cost: €2,619 (1400–4131). The total annual cost: €4,581 (2935–6569). **CONCLUSIONS:** Moderate-to-severe IBS-C symptoms greatly impact German QoL and work productivity. Current management practices result in high direct and indirect costs. This results in significant cost to both the German national healthcare service and the patient, with the latter assuming one quarter of all direct medical costs.

## PGI13

## COSTS OF INFLAMMATORY BOWEL DISEASE (CROHN'S DISEASE AND ULCERATIVE COLITIS) IN SERBIA

Kostic M<sup>1</sup>, Djakovic L<sup>2</sup>, Sujic R<sup>2</sup>, Jankovic S<sup>3</sup><sup>1</sup>Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia and Montenegro,<sup>2</sup>UKUKS, Belgrade, Serbia and Montenegro, <sup>3</sup>Faculty of Medical Sciences, University of Kragujevac, Kragujevac, Serbia and Montenegro

**OBJECTIVES:** Ulcerative colitis and Crohn's disease, have a significant impact on health care budget. The aim of this study was to estimate costs of treatment and utilization of resources by patients with inflammatory bowel disease (IBD) in Serbia. **METHODS:** We performed a population-based, cost of illness study to identify direct, indirect and out of pocket costs of treatment of patients with IBD from societal perspective. Patients with Crohn's disease (n = 59) and patients with ulcerative colitis (n = 53) completed semi-structured questionnaire with data about utilization of health resources and illness-related expenditures. All costs were calculated in Republic of Serbia dinars (RSD), at one-year level. **RESULTS:** Total direct costs per patient-year in group with Crohn's disease were 1,602,97 Euro (192,614,32 RSD) and total indirect costs per patient-year in group with Crohn's disease were 233,13 Euro (28,014,00 RSD). Total direct costs per patient-year in group with ulcerative colitis were estimated on 1,183,97 Euro (142,267,15 RSD) and total indirect costs per patient-year in group with ulcerative colitis were estimated on 178,39 Euro (21,436,00 RSD). The greatest part of direct costs were incurred by hospitalization (52,350,00 RSD per patient-year for Crohn's disease, and 47,895,00 RSD for ulcerative colitis), due to prolonged stay in a hospital (31 days per patient-year for Crohn's disease, and 34 days for ulcerative colitis). **CONCLUSIONS:** Costs of IBD in Serbia are lower than in developed countries for two reasons: relatively expensive biologic therapy is under-utilized, and prices of health services largely used by the IBD patients are controlled by state on a very low level.

## PGI14

## REAL-WORLD MEDICAL COSTS OF ANTIVIRAL THERAPY AMONG PATIENTS WITH CHRONIC HCV INFECTION AND ADVANCED HEPATIC FIBROSIS

Maan R<sup>1</sup>, Zaim R<sup>2</sup>, van der Meer A<sup>1</sup>, Feld J<sup>3</sup>, Wedemeyer H<sup>4</sup>, Dufour J<sup>5</sup>, Lammert F<sup>6</sup>,Manns M<sup>4</sup>, Zeuzem S<sup>7</sup>, Hansen B<sup>1</sup>, Janssen H<sup>3</sup>, Veldt B<sup>1</sup>, de Knecht R<sup>1</sup>, Uyl-de Groot C<sup>2</sup><sup>1</sup>Erasmus MC University Medical Center, Rotterdam, The Netherlands, <sup>2</sup>Erasmus University,Rotterdam, The Netherlands, <sup>3</sup>Toronto Western and General Hospital, University Health Network,Toronto, ON, Canada, <sup>4</sup>Medical School Hannover, Hannover, Germany, <sup>5</sup>University of Bern, Bern,Switzerland, <sup>6</sup>Saarland University Medical Center, Homburg, Germany, <sup>7</sup>Klinikum der Johann

Wolfgang Goethe-Universität, Frankfurt, Germany

**OBJECTIVES:** The aims of our multicenter study were to quantify direct medical costs during interferon (IFN)-based antiviral treatment and per sustained virological response (SVR) among patients with chronic hepatitis C-virus (HCV) infection and advanced hepatic fibrosis in the Netherlands, Germany, Switzerland and Canada. **METHODS:** Direct medical costs were quantified during IFN-based treatments received by all consecutive patients (N=455) with chronic HCV infection and biopsy-proven bridging fibrosis or cirrhosis (Ishak scores 4–6). The components of care from initiation of therapy were quantified by three distinct categories: treatment, safety-monitoring and complications. Total medical costs attributable to each cost component were calculated and expressed in 2013 Euros. Sensitivity analyses were performed to explore the influence of components of care and the SVR rate on medical costs. **RESULTS:** In total, 672 IFN-based treatments, administered to 455 patients, were included in the analysis. At time of inclusion, median age was 48 years (IQR 43–56), 317 (70%) patients were male, and 346 (76%) presented with cirrhosis. Platelet counts were available for 432 (95%) patients, of whom 226 (52%) had thrombocytopenia. Total mean medical costs per treatment were €14,559 (95% CI, €13,323–€15,836). Among patients with a normal platelet count and thrombocytopenia, mean costs were €12,419 (95%CI, €10,974–€13,937) and €14,416 (95%CI, €12,503–€16,598), respectively. The costs per SVR were €26,105 (95%CI, €23,068–€29,296) for patients with normal platelet counts and €50,907 (95%CI, €44,151–€59,612) for patients with thrombocytopenia. In patients with severe thrombocytopenia (platelet count below 100<sup>3</sup>/109/L) the costs per SVR were €74,961 (95%CI, €55,463–€103,541). The corresponding SVR rates were 48%, 28% and 18%, respectively. Sensitivity analyses confirmed the robustness of our results. **CONCLUSIONS:** Real-world medical costs did not differ significantly among patients with or without thrombocytopenia. However, the SVR rate was lower among patients with severe thrombocytopenia, in whom the medical costs per SVR with IFN-based therapy were substantial.

## PGI15

## ECONOMIC BURDEN IN STUDIES PUBLISHED IN 2014: WHAT TYPE OF GASTROINTESTINAL DISORDERS, INTERVENTIONS AND OUTCOMES HAVE BEEN MOST COMMONLY ASSESSED?

Martin A

Crystallise Ltd., London, UK